

for not only they, but the public, who soon give a character to any building when once erected, would be spared from making those remarks which they are so frequently led to do, on examining those structures which they are desirous of seeing models of taste to the present and to future generations.

As there are many models which cannot be viewed from all suitable positions according to the foregoing rule; it then remains for the projector to execute perspective views of them, allowing the eye or principal point to be placed in various favourable situations. In fact, with regard to the greater number of interior views, architects are in general obliged to employ perspective representations, in order to satisfy the minds of those who are likely to find the means of erecting the proposed structures.

We might proceed to explain many simple and effective methods which we have adopted in order to give effect whilst reviewing models; but as architects are generally sufficiently well versed in the science of optics, it seems needless to give such illustrations; more particularly, as we could scarcely do justice to this part of the subject without a few lineal or pictorial illustrations.

ASSESSED TAXES CASES.

Determined by the Judges on Appeal.

(No. 1477)—Windows—House—Due Assessment—What is.

A party appearing in the late survey to have eleven windows in his house, is liable to be charged for the same, although he had been assessed for eight only since 1834, he not shewing that he had opened additional ones since, or that he had been duly assessed in the year ending 5th April, 1835. (48 Geo. 3. c. 55, sch. (A.) and 4 & 5 Will. 4. c. 54, s. 7; and 3 & 4 Vict. c. 17, s. 12.)

At a meeting of the Commissioners of Assessed Taxes, held at the White Hart Hotel, in Hayle, within the said division, on the 12th day of October, 1840, to hear and determine appeals against the first assessment; Mr. William Hichens, of St. Ives, appealed against a charge made on him by Mr. Mitchell, the surveyor, in the course of his late survey, for three additional windows. The party being charged by the assessors for eight, and by the surveyor from eight to eleven windows. (48 Geo. 3. c. 55, sch. A.)

The appellant being sworn, stated that in the year 1834, ending 5th April, 1835, he was assessed for eight windows in respect of his present dwelling-house, wherein he then resided, and has continued to reside ever since, without having made any addition thereto, and that there are now eleven windows in his house.

That having been so assessed in 1834, and still occupying the same house, to which no addition whatever has since been made, he claimed, under the 7th section of the act of 4 & 5 Will. 4. c. 54, as extended by the 12th section of the act of 3 Vict. c. 17, to be exempted from any increased charge in respect of the additional number of windows now found therein.

Mr. Mitchell, the surveyor for the crown, in support of the charge, contended that finding on his survey of the appellant's house there were eleven windows therein, and believing from inquiry then made that no additional windows had been opened since the year 1833, the appellant was bound not only to prove that he was so assessed in 1834, but that he was then "duly assessed," and therefore called upon him to prove that there were no more than eight windows in the house at that time, and that he had since opened the additional number (three).

But the appellant declined to answer the question, and contended that by the facts already proved, he had satisfied the statutes referred to, and that no further *onus probandi* lay on him.

The Commissioners, however, determined otherwise, and confirmed the charge, with which determination the appellant was dissatisfied, and prayed a case for the opinion of her Majesty's Judges, which we hereby state and sign accordingly. Dated 17th November, 1840.

THOMAS PARCER.
WM. CORNISH.
JOHN PENNETT.

18th May, 1841.—We are of opinion that the determination of the Commissioners is right.

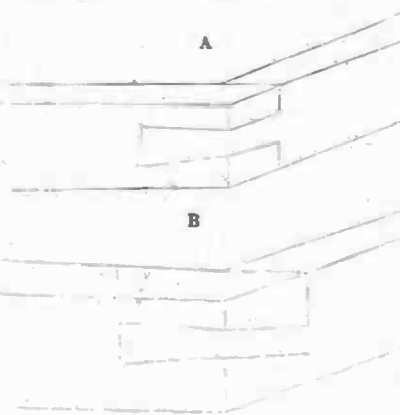
J. PATTERSON. T. COLTMAN. W. WIGHTMAN.
—Justice of the Peace.

(To be continued.)

ON FRAMING THE ANGLES OF BREAST-SUMMERS, WALL-PLATES, &c.

MR. EDITOR.—Having by chance taken up a number of *THE BUILDER* about three weeks ago, I was so much pleased with the good-feeling and kind encouragement shewn towards the working classes, that I immediately ordered all the back numbers, with the intention of becoming a permanent subscriber to a work which I find deserves better support than it appears to receive from that class for whose benefit it is particularly intended. I have known other works published with the same professed views, but so far from soliciting contributions from the operative class, they seldom noticed any such when sent to them. Now, Sir, it does appear to me that *THE BUILDER* is the very thing required to enable those who have no wish to hide their light under a bushel to communicate any little piece of useful knowledge they may exclusively possess for the benefit of the general body, but particularly the rising generation. Should my first essay be favourably received, I shall endeavour, as opportunities offer, to contribute my mite towards the mountain of information which by your means may be raised. This, my first essay to the Editor of *THE BUILDER*, will be upon the methods used by carpenters in framing together the angles of breastsummers, plates, templets, &c. The most common method is dovetailing, and I think it the best, but as it is well known that the dovetail will draw apart the same way as it is put together, it is usual to put a wooden pin or an iron bolt through the angle; now this is what I object to, because it is expensive, unnecessary, and injurious, particularly in wet or damp situations, for it

is well known to all practical men that wherever a pin is driven, the wet is sure to follow, and the parts adjacent become rotten; and in case of a bolt being used, it in a short time becomes so much corroded as to be of very little service. I will now endeavour to explain my method of putting such work together, which if once seen is easily understood. Suppose a pair of breastsummers, &c. about to be dovetailed together, it is usual to cut out the mortice part first, and at the same time taking care to cut the parallel part of the mortice or mortices at the end quite parallel with the edge of the piece of timber; but I take care to cut them bevelling down towards the shoulder side, say an inch or an inch and a quarter to a foot, by which simple method you will perceive the impossibility of its coming apart again when it has got weight upon it; in fact, the more weight there is upon it the more closely the one piece will keep to the shoulder of the other, because it is in a manner always sliding down an incline, and thus the dovetail holds it one way, and the utter impossibility of its rising prevents separation the other way. This method is particularly useful in putting together the angles of large oak plates or templets, on which to build wharf or other walls, Greenwich Pier fronts, for instance, where the body of earth behind is continually tending to thrust out the walls. In conclusion, I beg to say, that simple as it is, I believe it has never been thought of by any one but myself, and I have sufficiently proved its efficiency. Sketch A shews the common method, B shews mine. I have only shewn one dovetail, in order to shew it more clearly; and I have drawn the sketches as little out of proportion, for the same reason.



It must be remembered, that to mark the second piece correctly by the first, it is necessary to keep the first piece as much higher than the second as the mortice is cut out of a level or parallel line. If this is not attended to, the work will be spoiled, in

consequence of one piece being about an inch below the other, instead of coming together flush.

Wishing success to *THE BUILDER*, I beg leave to subscribe myself, Yours, Sir, respectfully,
CHARLES NEWHAM.

No. 1, Walcot-square, Lambeth.

THE INVENTOR OF THE SCREW PROPELLER.

TO THE EDITOR.

SIR.—I recently read a most interesting account in a French magazine (*Les Gufpes*), from the pen of the clever Alphonse Karr, of one of those inventive spirits who, while they seem born for the benefit of their contemporaries, rarely reap the fruits of their own industry. Without pretending to the eloquent style of the original, I shall merely transcribe a few facts. A man named Sauvage invented a new method of propelling steam-vessels by means of a *helix* in place of the paddle-wheels, which incapacitate them for war. Thanks to his system, the steamer is rendered independent of the changes of the wind. After thirteen years spent in endeavouring to call attention to his invention, after entirely exhausting his slender pecuniary resources, wasting his health, and maintaining an incessant struggle against the malice of some and the incredulity of others, Sauvage at length obtained the favour of a trial. Accordingly, the *Napoléon* was built at Hâvre by M. Normand for the government, and after several vain attempts at improvement (for improvement, read endeavours to evade the patent by some paltry alteration which should answer the end of robbing the clever inventor of the benefit of his labours, and enriching others at his expense), the steamer was completed and performed its passage from Hâvre to Cherbourg triumphantly, saluting Portsmouth and Southampton on its way back. On board the *Napoléon* was a committee composed of engineers and naval men, presided by M. Comte, postmaster-general. Where, meantime, it may be asked, was the real mainspring of all, the head that set them going? In prison at Hâvre for a paltry debt, contracted during his struggles to

bring his invention into notice. He, who ought to have been the hero of the day, "cabinéd and confined" within four walls, while the offspring of his brain was riding on the waters! Would not some men be maddened in such a situation? Yet Sauvage only complained that the *Napoléon* did not completely answer his expectations: and hopes still to perfect his helix, and solaces the tedious hours by constructing numerous little ingenious machines. The curious in these matters may refer to the *Gufpes*, and see how, with a little paper, a few feathers, and a bottle, this ingenious man has contrived a model of a mill, to be propelled likewise by means of a helix. Is it believable that neither the King of the French, nor the *Ministre de la Marine*, nor indeed the inhabitants of Hâvre, who ought to be proud of such a genius, should have felt compelled from mere shame to redeem him from his unhappy condition?

Now it strikes me, Mr. Editor, that were Sauvage's case known in this country, a subscription would be raised in his behalf. It would be a noble deed to atone to such a man for the ingratitude of his countrymen—the only species of warfare against our neighbours that philanthropists ought to approve—because a war against injustice and prejudice. It is not to our government that the appeal is made—though, perhaps, it might be to their advantage to secure his services—but to private individuals, and there are plenty of generous spirits who would cheerfully contribute to the enlargement of one of the *martyrs to invention*, who, alas! are seldom pitied till after their death. Should you think it worth while to insert this letter in your Journal, you will, perhaps, render good assistance to a deserving individual—publicly being help in a case like this—and greatly oblige one of your subscribers,
A FRIEND TO INVENTORS.

July 31, 1843.